



REQUEST FOR INFORMATION (RFI)

R21-105KK

Date issued: August 6, 2021

**DATA INVENTORY, WHICH WILL
SUPPORT THE CITYWIDE DATA
MANAGEMENT PROGRAM**

THE CITY OF COLORADO SPRINGS

Contact

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Request for Information (RFI) – Access Management Program

Date Issued: August 6, 2021

Project #: R21-105KK

RFI MEETING:

The City will be holding a meeting for interested vendors to meet with Data Management Working Group, including stakeholders, to discuss this RFI and answer any questions. The meeting will take place virtually via a teams meeting on August 19, 2021 from 9:00AM-10:00AM MST. This meeting is NOT MANDATORY and all interested parties are invited to attend.

Microsoft Teams meeting

Join on your computer or mobile app

[Click here to join the meeting](#)

Or call in (audio only)

[+1 720-617-3426,,201748223#](#) United States, Denver

Phone Conference ID: 201 748 223#

[Find a local number](#) | [Reset PIN](#)

RESPONSES DUE:

Responses are due via bidnet submission by 2:00PM MST September 22, 2021. Respondents must provide a response in accordance with the Statement of Work. The Statement of Work lists all information requested. Respondents may submit responses in their own format with no page or format limitations.

DUE: SEPTEMBER 22, 2021 2:00PM MST

SUBMITTALS FOR THIS PROJECT WILL ONLY BE ACCEPTED ON BIDNET

Please login to the following website to register to submit a proposal for this project. All required documents will be uploaded to the website:

<https://www.rockymountainbidsystem.com>

1.1 PURPOSE

The City of Colorado Springs is soliciting information from the vendor community for a potential future solicitation. The City of Colorado Springs is interested in understanding the associated costs, differing capabilities and options and vendor approaches that would ultimately support the work to elicit, analyze, design, build, implement the city's data inventory program that would support the citywide Data Management Program.

It is the City's intent in issuing this Request for Information (RFI) to determine whether there are a sufficient number of interested and qualified sources that can provide these services, and to determine a budgetary estimate for this service.

1.2 REQUESTS FOR INFORMATION DEFINITION

Responses to this RFI are considered non-binding and are only used to gather information to be used for budgetary and specification preparation purposes. It will also be used to determine the number of companies that exist in the industry for a possible future competitive procurement and/or to determine the possible existence of potential piggyback opportunities if other government contracts exist.

It is not the intent of the City to award a contract as a result of this RFI. However, in the event that the responses indicate little or no interest, the City reserves the right to pursue a competitive negotiation process or to consider an unsolicited proposal or piggyback opportunity without issuing a formal RFP if it is in the best interest of the City. If this RFI determines that there are sufficient interested and qualified vendors/contractors and favorable monetary estimates, the City may issue a formal RFP (Request for Proposal) for these services. If an RFP is issued then all firms that responded to this RFI will be added to our source list and will be formally invited to propose.

1.3 BACKGROUND AND SCOPE OF WORK

The City desires to identify vendors that have the capacity to fulfill requirements as described in the attached Scope of Work (Exhibit 1) and to assist the City in refining its specifications by completing the Functional Requirements document (Exhibit 2). In addition, the City seeks budgetary estimates for the effort described.

1.4 PROCEDURAL INFORMATION

Cut Off Date for Questions September 1, 2021 2:00 PM MST

Questions about the RFI must be submitted online to the Bidnet portal at www.bidnetdirect.com. A written response to any inquiry may be provided in the form of an Amendment to the solicitation. See 1.7 Amendments. Questions must be received no later than Date and time listed above.

DO NOT CONTACT ANY OTHER INDIVIDUAL AT THE CITY OF COLORADO SPRINGS REGARDING THIS SOLICITATION.

The only acceptable method of submitting questions is submitting via Bidnet. Emails, Faxes or physical mail delivery are not acceptable.

1.5 RESPONSE SUBMISSION

Responses should be prepared simply and economically while still providing pertinent details of the vendor's ability to meet the requirements specified in this document (or portions thereof) and as stated below. At a minimum they should include the following information:

1. Company name, address, phone number and e-mail address of the contact person.
2. Short biography of company.
3. Description of how the company would approach this project. In the description of approach, please be sure to include:
 - a. What data the City would need to provide to complete this project
 - b. Ability to comply with Exhibit 1 - Scope of Work (SOW) and Exhibit 2 - Functional and Non-Functional Requirements (FR).
 - c. Suggested revisions to SOW and/or FR
 - d. Description of architectural landscape of the proposed solution
4. Budgetary estimate for service support and any associated costs (i.e. engineering, implementation, maintenance, etc). For each different approach presented, include costs variants as needed if there are multiple approach options.
5. References: provide the names and locations of at least three (3) references at which your company has conducted similar services and requirements. Indicate if your company has been awarded other contracts from a federal, state or local government entity.
6. Ability to comply with minimum and desired qualifications listed in Exhibit 2.

1.6 COST OF RESPONSES

The City of Colorado Springs is not liable for any cost incurred by vendors in preparing their response. Respondents may be asked to clarify or expand upon information provided.

1.7 PROPRIETARY INFORMATION

If a response contains information that the respondent does not want disclosed to the public, or used for any purpose other than the evaluation of this response, all such information must be indicated with the following or similar statement: "*The information contained on pages _____, _____, and _____ shall not be duplicated or used in whole*

or in part for any purpose other than to evaluate the response provided. If a contract is awarded to this firm as a result of the submission of such information, the City of Colorado Springs shall have the right to duplicate, use, or disclose this information to the extent provided in the contract. This restriction does not limit the City of Colorado Springs' right to use the information herein if obtained from another source."

All such nondisclosure items specified in the response shall be subject to disclosure as provided in the Colorado Open Records Act (CORA) or as otherwise provided by law.

1.8 RESPONSE MATERIAL OWNERSHIP

All material submitted in response to this RFI becomes the property of the City of Colorado Springs except for software products that are made available for demonstration purposes and proprietary material.

EXHIBIT 1 – SCOPE OF WORK

1.0 BACKGROUND AND OBJECTIVES

In September 2020, 10 city departments and enterprises participated in a data culture survey facilitated by a third party. The overall score for the city's data maturation was 'low', with areas of improvement consisting of centralizing city data, overall governance and management of city data and its quality. In response to the survey results, the city hired a vendor to conduct a Data Governance Workshop, which provided the city with a high-level roadmap on overall data governance implementation. In addition to the workshop, the Office of Innovation and City IT departments established the Data Management Working Group which produced a "City of Colorado Springs Data Strategy." The Strategy is a cohesive, business-driven strategy that will inform the city's data journey. The intent of the strategy document is to outline the required steps to establish a framework to manage change, foster partnerships, provide visibility, and drive support for the establishment of a data-driven culture and required infrastructure. The primary deliverable in the strategy is the development of a city Data Management Program (DMP), which will serve as the formal structure to manage the tools, technologies, and processes used to enhance the usefulness and security of the City's data.

The city's data journey is like all other organizations. It must understand how data and information is created and how it is used if it is truly going to mature its position on the overarching potential that a data driven environment offers to the city. The city has learned that it must create an environment that fosters data trust and integrity, create a consumable path for management and ultimately sustain an environment that allows for on-demand data interaction. However, a municipality comes with unique challenges. Most organizations have one or two unique data cultures. The city has multiple. There are 18 departments that report to the Office of the Mayor and two legislative branches that comprise the organizational structure of the City of Colorado Springs. Between those 20 organizations, data is used in a multitude of ways without clear citywide governance on how data is created, managed and/or disseminated. Finding efficiency and aligning data within all city business processes, within and across all 20 organizations is a monumental effort that is and will be an continual ongoing process. Based on citizen and business demands of today, the city realizes it needs to understand how data and information is created and consumed if it is to ever find efficiency through automation.

The city has a huge appetite to be 'data-driven' and is ready to make an investment into its data future.

NOTE: We want to provide an understanding of the broader scope and our long-term plans as described in the objectives below – however, RFI responses should only target the recommendations and effort associated to the specific efforts and deliverables described within the scope below.

In support of the city's Data Management Program (DMP), and its data journey, the city must collect and manage where its data is, what it is, how it is being created, used, disseminated, destroyed, protected, and backed up.

We are looking for a partner that has vast experience managing and advising on all aspects of data management with particular emphasis in understanding the stakeholder desires and documenting and executing a data inventory, data glossary and data dictionary. Utilizing the objectives below, the expectations for this partner under this RFI, is to describe how they would engage a city like Colorado Springs to conduct, build and sustain a data inventory, along with a rough costing modeling, utilizing best practices and their experience.

Stakeholder understanding:

1. What are the current challenges related to data access and usage?
2. What is the current and future role of data within their departments processes and decision making?
3. How are they looking to leverage data:
 - What questions are they looking to answer by using data?
 - What reports/insights are they looking to see and have at their fingertips?
 - What new/enhanced data use cases is the individual/team/department looking to have in the future?
 - Supporting the Mayors goal of excelling at city services, what are their aspirations for automating business processes?

Overall Data Inventory Program Objectives:

1. Produce repeatable templates, systems and processes, and model/train by conducting the process using those templates, systems, and processes
2. Interview the identified city department (stakeholder) and produce a Data Inventory/Mapping artifact that will be used as a single source of data truth that connects city/department data to its business process and application and identify at a high level, how critical that business process is to the mission and citizen services that the city provides
3. Identify what data is appropriate for a data warehouse, vs. another approach in a data pipeline, and identify logical data relationships to help guide the future design of a logical data warehouse
4. The inventory should call out key terms/data which need definition in a glossary and/or establishment of a standard or policy by the DG team which will provide the initial backlog of work for that team
5. Leverage the information collected in the data inventory efforts to associate business processes with both existing and needed business capabilities as well as part of mapping our business capabilities to both our business and technology services.
6. Gain a greater understanding of how each department/team views the importance of their data, what factors or considerations they take into account when assigning a rating of how critical the data is, so that ultimately we can develop a citywide standard classification that will help guide our decisions around back-ups, recovery, and business continuity in a structured fashion.

7. IT is not necessarily aware of all processes, data or technology being used by the various departments across the city, so we would also like to leverage this opportunity to grow our knowledge and understanding of the various business processes, data, and tools being employed to help guide our strategic technology roadmaps and become stronger partners with our business teams.
8. Understand which approaches towards establishing and maintaining a successful, combined Data Governance and operational data pipeline practice, including detecting, correcting, and improving data quality, are the most effective at producing real value for the organization over the long-term, particularly in light of the vast extent of data in our environment, and our relative inexperience in leveraging that data.
9. In support of the IT Business Continuity Plan (BCP) we would be interested in proven strategies on how to better align and map the information from the data inventory and the Business Impact Analysis (BIA).
10. Create a single per department data model that depicts how data flows in and out of each department, their applications and their business processes
11. Create a single citywide data model that depicts how data flows in and out of each department and in and out of the city.
12. Show what the external demand is by the public, with respect to Open Data.
13. The minimum Information within the Data Inventory should include (The city would look to the partner to advise add/remove fields they have found to be valuable)
 - Business process name
 - Dataset name
 - Description
 - Who manages it
 - Who is the data owner
 - Who is the CASA for this business process
 - Is the data created or consumed.
 - If consumed - from where
 - If created - how
 - Who has, or should have, access to this data
 - Using the city's data classification standard, how should the data be classified (open, sensitive, restricted)
 - What access controls need to be in place (desired and regulatory)
 - What governance controls need to be applied
 - How is the integrity of the data verified
 - o What metrics are applied
 - What technology is relied upon to create this dataset – if known
 - Where is the data stored (local, server, dB, cloud, SaaS)
 - Is there Personal Identifiable Information (PII), financial records (SOX), health records (HIPAA), payment card information (PCI-DSS)

- Accuracy level of the data
- Data percent complete
- Is this data publicly available
 - o Should it be
- What is the retention policy for this dataset
- What is the anticipated Recovery Point Objective (RPO)
- What is the anticipated Recovery Time Objective (RTO)
 - o Tier 1 – Most critical
 - o Tier 2 – Critical
 - o Tier 3 – Important
 - o Tier 4 – Deferred

14. Understand what change management controls, processes and procedures should be in place to ensure the integrity of the data inventory artifacts.

Scope

The city is seeking a partner that will use their past experience and industry best practices to comment on the level of effort and cost to create governing policies, procedures and standards related to Data Inventory/Mapping to engage city departments in order to identify and document how each are using, creating and sharing data within and between the many data silo's within and outside of the city.

The project deliverables will be:

- Create a data inventory interview engagement plan
 - o Document (editable .doc)
 - o This includes the questions that will be asked systemically throughout the citywide inventory process as well as a stakeholder discovery timeline and roadmap
- Create a data inventory communication plan that would keep the city and its departments, and all stakeholders informed where the data inventory engagement is, what its value is and any metrics that shows completed and uncompleted efforts.
 - o Document (editable .doc)
- Create applicable data inventory policies, procedures and supporting standards
 - o Document (editable .doc)
- Create a useable citywide data glossary template
 - o Form (.xls or any agreed upon consumable format)
- Create a usable citywide, and per department, data dictionary template
 - o Form (.xls or any agreed upon consumable format)
- Create repeatable and useable data inventory template(s)
 - o Form (.xls or any agreed upon consumable format)
- Interview one (1) city department documenting each identified structured and unstructured dataset utilizing the questions outlined in the objectives 1-1 above as a minimum starting point

- Create a data model from the information gathered that highlights and supports an IT\Business Capability Map
 - Advise the city on lessons learned to curtail pain points (tell us what we don't know)
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This Request For Information (RFI) will:

- Be used to understand what the level of effort and cost will be to create the above-mentioned templates and perform a data inventory for one (1) city department
 - Be used to gain a broader understanding of the partner community and the options available to the City of Colorado Springs
 - Be used to refine and write the requirements, final deliverables, and scope of work for any and all Request for Proposals (RFP) supporting the city's data management journey.
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EXHIBIT 2 – FUNCTIONAL AND NON-FUNCTIONAL REQUIREMENTS

2.0 RESPONSES

Responses should address each functional requirement and how the vendor would address the requirement. Screenshots or examples should be provided where possible to enhance IT's understanding of the solution and address ease of use concerns. Additionally, responses should include pricing options and explanations as appropriate. For example, there may be different costs for a hosted or on-premise solution – if both solutions are possible as part of this RFI, both costs should be included. Any requirement that is marked as Partially Comply or Plan to Comply should be followed with an explanation of the current compliance level or planned compliance and timeline. Lastly, if modules or features are required to meet all the functional requirements, this should be described in detail with the associated costs. Please also include whether you would approach the effort as a time and materials contract, fixed bid, or capped time and materials.

2.1 FUNCTIONAL REQUIREMENTS LEGEND

SD = Standard - Requirement is standard to product or application software; no modification required.

MC = Moderate Change – Product or application software will satisfy this requirement with moderate modification.

SC = Significant Change - Significant customization is required to satisfy the requirement.

Instructions for Vendors:

- Using the definitions above for SD, MC, and SC, please mark each requirement in the table below with an "X" in the appropriate column to indicate if each requirement is SD, MC, or SC for your company's solution.
- For any MC or SC responses, please add a comment about the nature of the change in the comments section (examples: configuration parameter change, scripting, or code modification) and an estimate of the time required to complete the change.
- Add any appropriate comments or additional costs required for additional consideration.

2.2 FUNCTIONAL AND NON-FUNCTIONAL REQUIREMENTS

Req #	Functional Requirements	Priority	SD/ MC/ SC	Vendor Response	Additional Costs
A	Discovery Requirements				
A.1	Partner must be willing to meet physically or virtually with one (1) city department at various locations and times, utilizing the agreed upon questions and templates, to conduct a data inventory of any and all identified datasets	Must have			
A.2	Response must include the creation and publication of the stakeholder discovery timeline and roadmap	Must have			
B	Actionable processes				
B.1	Create the data inventory policy that will be used to govern the execution and sustainability of the data inventory program	Must have			
B.2	Create the data inventory collection and engagement process and procedures	Must have			
B.3	Create a data inventory communication plan	Must have			

B.4	Create the data inventory questionnaire template	Must have			
B.5	Create the data inventory master template	Must have			
B.6	Create a citywide data glossary template	Must have			
B.7	Create a per department data dictionary template	Must have			
B.8	Create the business capability map (BCM) template that maps the dataset to its business process and to the technology it uses	Must have			
B.9	Response must identify how data inventory quality checks should be applied to guarantee data integrity and data quality	Must have			
B.10	Response must address change management recommendations for all artifacts listed above.	Must have			
C	Technical Requirements				
C.1	Response must identify the process that would be used to document all technology as it is used in the creation of each data asset	Must have			
C.2	In collaboration with City IT policies, identify the stakeholders required backup strategy	Must have			
C.3	Identify the RTO/RPO requirements for each data asset	Must have			
C.4	Identify whether the identified data asset is structured or unstructured	Could have			
C.5	Identify potential inclusion into a recommended data warehouse or mart	Could have			
C.6	Identify and recommend best practices for data curation	Must have			
C.7	Identify and recommend best practices for data virtualization	Must have			
D	Generic Requirements				
D.1	Partner must demonstrate project success for projects of similar scope and size in the past for at least three (3) projects.	Must have			
D.2	All partner employees working with City of Colorado Springs' data shall sign a confidentiality statement.	Must have			
D.3	Systems developed by either internal City or contracted system developers shall not include back doors, or other code that would cause or allow unauthorized access or manipulation of code or data.	Must have			
D.4	All systems, or artifacts, shall use software which is eligible to be added to or current within the City Technical Reference Model (TRM); no End of Life software or applications shall be used.	Must have			
D.5	The partner will recommend changes/updates to any involved systems or technology resources through the City IT Change Management process	Must have			

Appendix A: City Departments and Estimated Headcount for 2021

Department/Division Name	Headcount
City Attorney	49.00
City Clerk	11.00
Municipal Court	37.50
City Auditor	14.00
City Council	8.00
Finance	41.75
Fire	524.00
Office of Emergency Management	6.00
Information Technology	83.00
Mayor and Support Services	7.00
Communications	11.00
Economic Development	4.00
Human Resources	32.25
Procurement Services	7.00
Support Services	60.75
Parks	187.25
Planning & Community Development	80.00
Police	1057.00
Public Works	267.75
Airport	106.00
Parking Enterprise	10.00